DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-029458
Date Inspected: 15-Apr-2013

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job site

CWI Name: Andrew Keech

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
				Approved WPS:	☐ Yes	☐ No	☑ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower N-043 #15 "P"

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Robert A. DeArmond was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe and perform Non-Destructive testing for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

This QAI performed ultrasonic testing in tandem with ABF-QC personnel; during a joint venture pulse echo ultrasonic testing (PEUT) and indirect pitch catch ultrasonic testing (PCUT) of Electroslag welds. The purpose of this additional non-destructive weld evaluation is to further evaluate previously documented planar indications, therefore PEUT and PCUT test methods were utilized. All test locations were selected by ABF personnel, it should be noted; no specific PEUT and /or PCUT rejection, acceptance, and calibration criteria was specified, therefore this testing is for informational purposes only.

The following locations were scanned utilizing the PEUT and PCUT scanning technique.

1. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 3470

PEUT Indication Rating: +15db
Depth 39 mm Surface Distance: 109 mm
PCUT Indication Rating: +7db
Spacing: 220 mm

2. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 3770

PEUT Indication Rating: +13db
Depth 38 mm Surface Distance: 109 mm
PCUT Indication Rating: -3db
Spacing: 240 mm

3. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 5370

PEUT Indication Rating: +9db
Depth 67 mm Surface Distance: 194 mm
PCUT Indication Rating: 0db
Spacing: 90 mm

4. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 5705
*Transverse indication

5. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 6080

PEUT Indication Rating: +12db
Depth 43 mm Surface Distance: 121 mm
PCUT Indication Rating: -3db
Spacing: 200 mm

6. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 8600

PEUT Indication Rating: +4db
Depth 39 mm Surface Distance: 111 mm
PCUT Indication Rating: +3db
Spacing: 230 mm

7. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 8750

PEUT Indication Rating: +8db
Depth 38 mm Surface Distance: 107 mm
PCUT Indication Rating: -1db
Spacing: 240 mm

8. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 8830

PEUT Indication Rating: +11db
Depth 38 mm Surface Distance: 109 mm
PCUT Indication Rating: +11db
Spacing: 170 mm

9. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 8980

PEUT Indication Rating: +14db
Depth 43 mm Surface Distance: 120 mm
PCUT Indication Rating: +3db
Spacing: 212 mm

10. Location: P (Weld No.: N-043 # 15 Face A)
Joint: 80 to 100 mm Transition Y Location: 9030
*Indication not discovered during PEUT weld evaluation

Summary of Conversations:
As mentioned above between QA and QC concerning this project

Comments
This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	DeArmond,Robert	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer